



## Mitigating the Impact of Flood on Fish Farmers

Following the unprecedented 2012 flood, an assessment of the impact of the floods on the agriculture and food security sector was undertaken by a multi-agency team led by FAO. The team comprised experts from the Federal Ministry of Water Resources (FMWR), the Federal Ministry of Agriculture and Rural Development (FMARD), the National Emergency Management Agency (NEMA), the Food and Agriculture Organization (FAO) of the United Nations, the World Food Programme (WFP), United Nations Development Programme (UNDP), the National Planning Commission (NPC), NGOs, the State Emergency Management Agencies and the State ministries in charge of Agriculture.

The assessment covered 14 states that were severely affected by the floods and focused on the impact of the floods on agricultural production (crops; livestock; capture fisheries and aquaculture and agriculture infrastructure and facilities) and food security.

Eight states across the federation – Adamawa, Bayelsa, Delta, Edo, Kebbi, Niger, Plateau and Taraba - were found to be worst affected and most needing humanitarian support to rehabilitate agriculture and improve household food security. Given that the Federal and State governments were already planning to provide substantial support to crop farmers, FAO saw it necessary to assist smallholder fish farmers and women fish processors and marketers to rehabilitate their livelihoods



### FAO support to the aquaculture sub-sector

With funds provided by the UN Office for the Coordination of Humanitarian Affairs (OCHA) through the Central Emergency Response Fund (CERF), FAO coordinated efforts with relevant Federal and State agencies, to support rehabilitation and recovery of smallholder aquaculture and processing, as well as enhance skills in flood preparedness and flood management in the aquaculture sub-sector. The emergency project aimed to alleviate the impact of the floods on households, enabling them to immediately rehabilitate and re-engage in small-scale fish farming for household income generation and access to food and nutrition.

The CERF project, entitled “Life saving support for fisheries producers in States most affected by the 2012 flood in Nigeria”, targeted resource poor smallholder fish farmers. The response supported 1000 fish farming households and 1,800 women fish processors. The criteria for selecting beneficiaries included:

- i. Evidence of fish farming activity prior to the flood
- ii. Household fish stocks before the flood should be 5000 or less
- iii. Pond size not more than 2000m<sup>2</sup>
- iv. Location with high losses due to the flood



v. Gender

vi. Women fish processors and marketers.

Beneficiary households were provided with inputs as indicated below:

- A total of 600,000 juvenile catfish for restocking of fish ponds at 600/household and fish feed and feed meals to restart production;
- 170 MT of fish feed at 170kg/ household
- A total of 180 fish processing equipment with capacity of 25kg each/day, for 10 processors/fish smoking kiln

State	Number of Beneficiary Households (HH)	No. of Juvenile fish for pond restocking	No. of bags of fish feed (10 bags/ HH)	No. of bags of fishmeal (1 bag/HH)
Adamawa	43	25,800	430	43
Bayelsa	75	45,000	750	75
Delta	289	173,400	2,890	289
Edo	145	87,000	1,450	145
Kebbi	164	98,400	1,640	164
Niger	150	90,000	1,500	150
Plateau	50	30,000	500	50
Taraba	84	50,400	840	84
<b>TOTAL</b>	<b>1,000</b>	<b>600,000</b>	<b>10,000</b>	<b>1,000</b>



State	No. of Beneficiary Fish Processors	No. of Fish Smoking kilns (10 women/kilns)
Adamawa	90	9
Bayelsa	280	28
Delta	310	31
Edo	100	10
Kebbi	170	17
Niger	240	24
Plateau	400	40
Taraba	210	21
<b>TOTAL</b>	<b>1,800</b>	<b>180</b>

### Economic and Food Security Benefits

The inputs provided for the restocking of the ponds enabled the fish farmers to quickly re-engage in production, thus



preventing the situation from deteriorating into a protracted food emergency. This support enabled the households to rebuild their livelihoods, generating an income of approximately N228, 000 Naira (equiv. US\$1,400) per household at farm gate from the original stock provided by FAO.

The support provided to the 1,800 women fish processors with 10 women per smoking kiln, enabled them to process 150kg of fresh fish per week (6 days a week producing a total of 50kg of smoked fish). At a market price of N1,000/kg of smoked fish, total income was estimated at N50,000/week (N20,000/woman/month). This income is above the official monthly minimum wage of N18,000 in Nigeria.

### Improvement in flood management skills

The project also helped in building the capacity of fish farmers to respond more effectively to reduce risk and improve preparedness for floods in the aquaculture sub-sector. The training provided to aquaculture extension workers and state emergency personnel in flood preparedness and management included: *Climate Change and Flood Disaster Management Strategies, Aquaculture Site Selection and Pond Construction; Alternative Livelihood for Artisanal Fishermen and Fish Farmers during Times of Flood*. Fish producers benefitted through the extension services. Earthen fish pond channels were constructed to divert future flood waters from the farms and dykes (walls) were re-enforced and outlets from ponds de-silted. Some farmers, who could not re-engineer their pond facilities to avoid future floods, re-located from the flood prone areas and built new pond facilities.

The emergency support complemented on-going FAO support on aquaculture development funded by both the government of Nigeria and FAO.

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